

Silicon rectifier diodes and bridge modules

bridge modules (single phase)

book 1 part 4

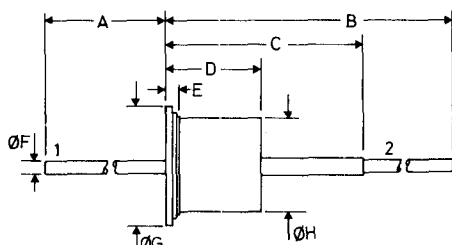
DESIGN TYPES

Type No.	Drawing reference	INPUT			OUTPUT		
		V_I (RMS) (V)	V_{IRM} (V)	V_{IWM} (V)	I_{ISM} (A)	$I_{O(AV)}$ (A)	I_{ORM} (A)
BY164	BQ	42	120	60	25	1.4	5
BY225 -100 -200	BR	50 80	100 200	70 112	100	4.2	50
BY179	BQ	280	800	400	25	1	5
BY224 -600 -850	BR	280	600 850	400	60	3.6	50
BYW44 -200 -400 -600 -800	BS1	140 280 420 560	200 400 600 800	200 400 600 800	40	4	15
BYW45 -200 -400 -600 -800	BT	140 280 420 560	300 600 900 1200	200 400 600 800	75	6	75
BYW46 -200 -400 -600 -800	BT	140 280 420 560	300 600 900 1200	200 400 600 800	75	8	75
BYW47 -200 -400 -600 -800	BT	140 280 420 560	300 600 900 1200	200 400 600 800	180	12.5	180

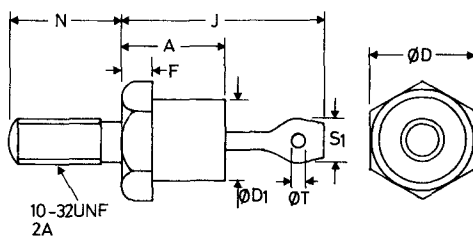
CURRENT TYPES

OSH007	BO3	570	1600	800	15	0.7	—
OSH01 -100 -200 -400	BP	70 140 280	150 300 600	100 200 400	30	1	—
OSH01A -100 -200 -400	BO1	70 140 280	150 300 600	100 200 400	30	1	—
OSH02A -200 -400 -600 -800	BO2	140 280 420 560	350 650 950 1250	200 400 600 800	36	2	10
OSH03 -200 -400 -600 -800	BS2	140 280 420 560	200 400 600 800	200 400 600 800	55	3	15
OSH05 -200 -400 -600 -800	BT	140 280 420 570	300 600 900 1200	200 400 600 800	—	5	20
OSH07 -600 -800 -1000	BT	420 570 710	600 800 1000	600 800 1000	—	7	120
OSH10 -600 -800 -1000	BT	420 570 710	600 800 1000	600 800 1000	—	10	440
OSH10A -200 -400 -600 -800	BT	140 280 420 570	300 600 900 1200	200 400 600 800	165	10	60

OUTLINES and DIMENSIONS (millimetres)

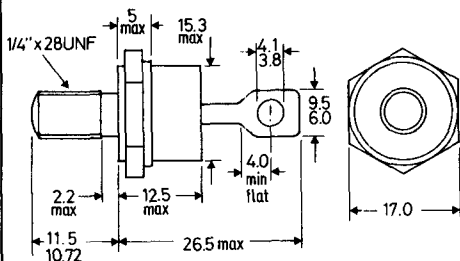
A
B.S.3934 SO-16
**DO-1
DO-2
DO-3**


	1	2	A	B	C	D	E	ØF	ØG	ØH
A1	a	k	35	51	17	7.7	1.6	1.1	9.6	7.1
A2	k	a	35	49	17	8.5	1.9	1.1	9.7	7.1
A3	k	a	35	51	17	7.7	1.6	1.1	9.6	7.1

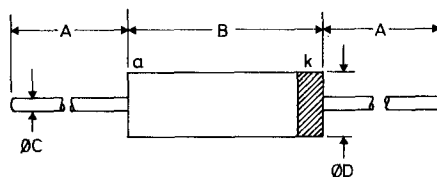
B
B.S.3934 SO-10
DO-4


A	10.3 max.	J	20.3 max.
ØD	11.1 max.	N	11.5 max.
ØD1	9.3 max.	S1	4.8 max.
F	3.2	T	1.6 min.

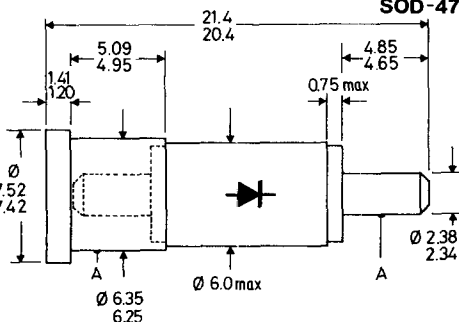
	Stud	Eyelet
B1	k	a
B2	a	k

C
B.S.3934 SO-13
DO-5


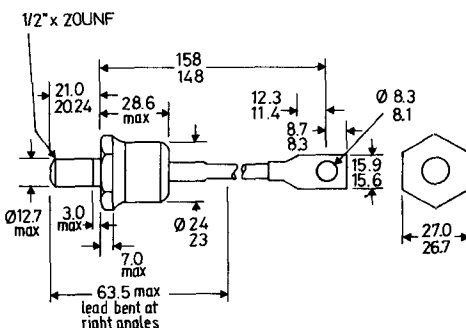
	Stud	Eyelet
C1	k	a
C2	a	k

D
**DO-7
DO-14
DO-15**


		A	B	ØC	ØD
		min.	max.	nom.	max.
D1	DO-7	25.4	7.6	0.52	2.5
D2	DO-14	25.4	7.6	0.5	3.3
D3	DO-15	25.4	6.4	0.8	3.2

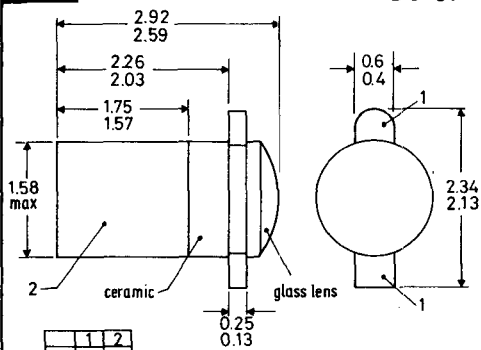
E
**DO-22
SOD-47**


A = concentricity tolerance = ± 0.20

F
DO-30


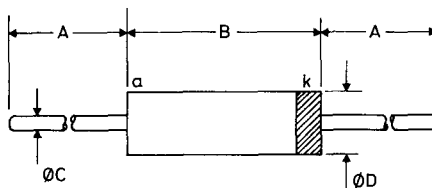
BZW86 Blue sleeve - anode to eyelet
BZW86R Red sleeve - anode to stud

These drawings give limited information for quick reference purposes. For equipment design more complete information should be obtained from individual data sheets in the Technical Handbook or from standard B.S. or JEDEC outline drawings.

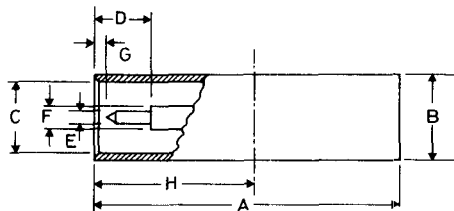
G**DO-31**

	1	2
G1	k	a
G2	e	c

For LED's the overall length = 3.60/2.97

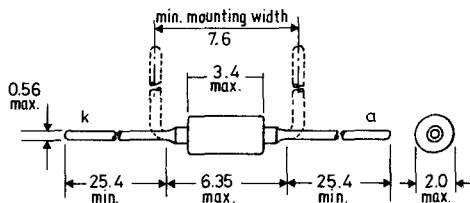
H**DO-35**

A min.	B max.	ØC max.	ØD max.
25.4	4.25	0.56	1.85

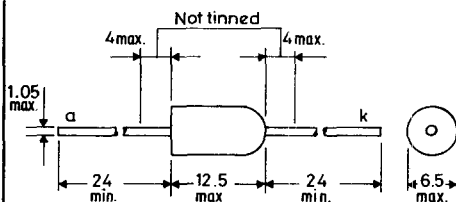
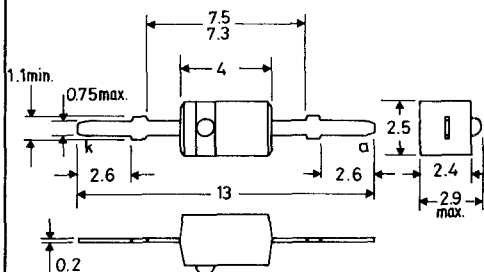
J**DO-37
SOD-49**

A	19.43/18.67	ØE	0.84/0.79
ØB*	5.59/5.49	ØF	1.57/1.52
ØC	4.80/4.72	G	0.71/0.15
D	3.73 min.	H	10.32 nom.

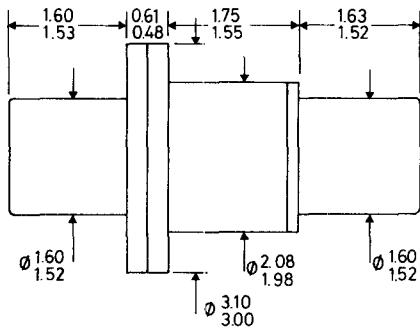
*These tolerances apply only over H

K**SOD-17**

Cathode indicated by the broad band of colour code

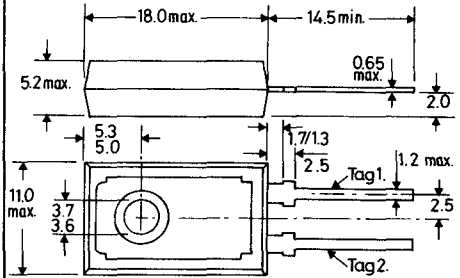
L**SOD-18****M****SOD-23**

SOD-31



0

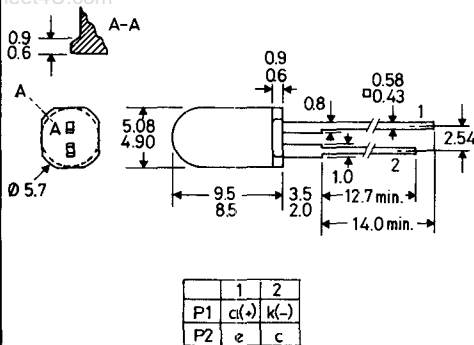
SOD-38



		polarity	
		normal	reverse
Tag 1 = base-plate:		cathode	anode
Tag 2	:	anode	cathode

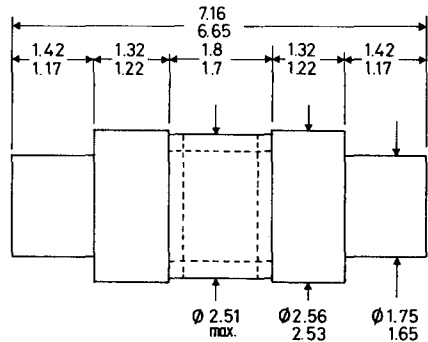
P

SOD-39



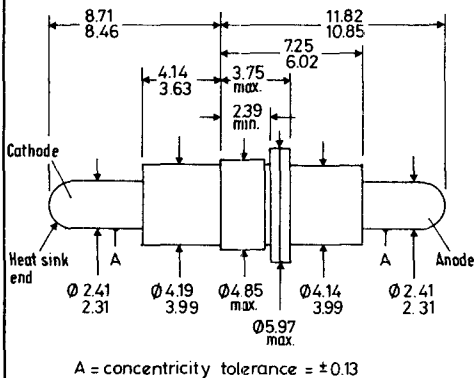
Q

SOD-42



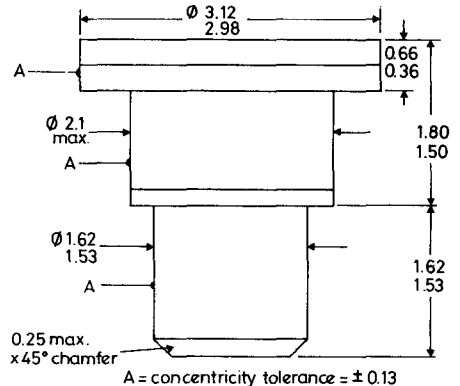
R

SOD-43

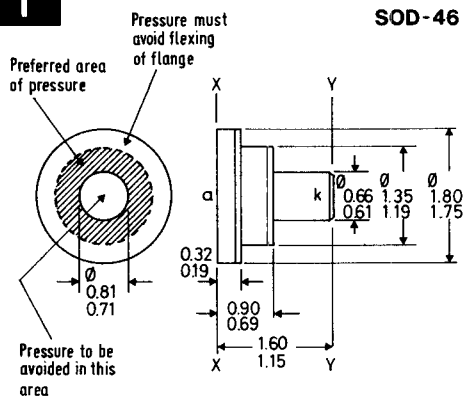
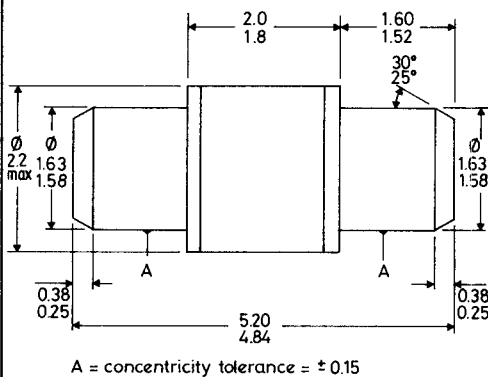
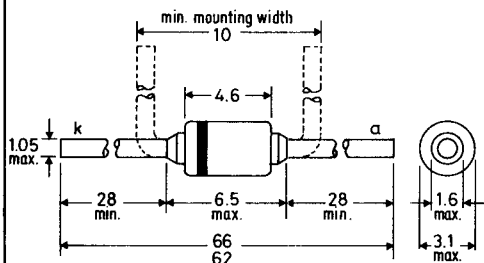
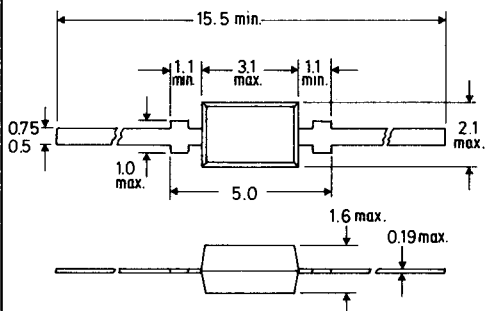


S

SOD-45



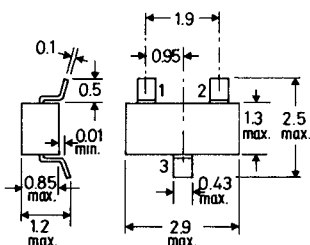
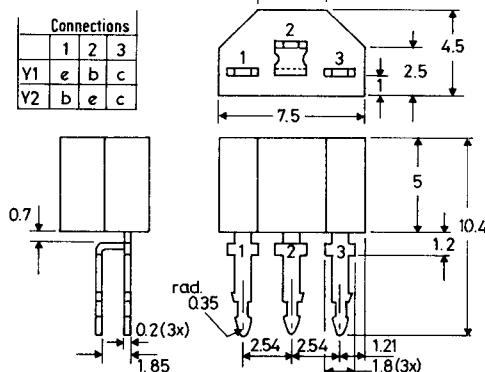
These drawings give limited information for quick reference purposes. For equipment design more complete information should be obtained from individual data sheets in the Technical Handbook or from standard B.S. or JEDEC outline drawings.

T**SOD-46****U****SOD-50****V****SOD-51****W****SOD-52**

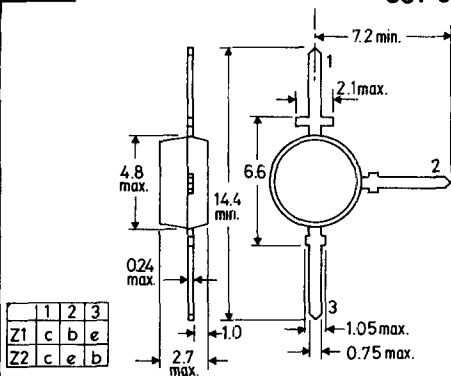
The coloured end indicates the cathode

X**SOT-23**

	1	2	3
X1	b	e	c
X2	s	d	g
X3	nc	a	k
X4	a1	a2	k
X5	k1	k2	a
X6	k1	a2	common
X7	e	b	c

**Y****SOT-25**

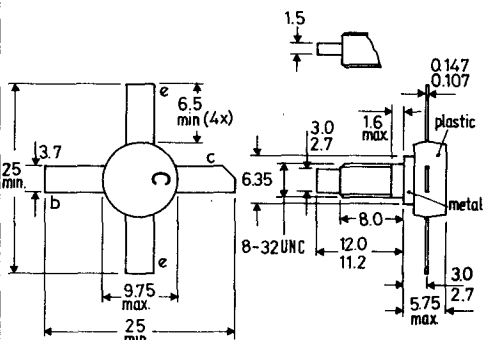
SOT-37



	1	2	3
Z1	c	b	e
Z2	c	e	b

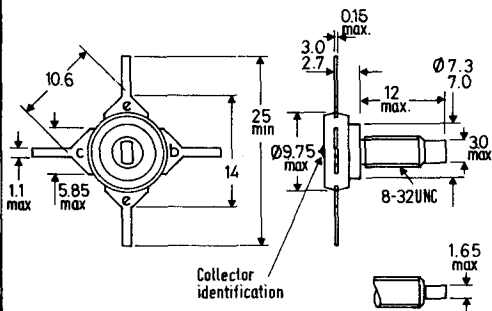
AC

SOT-48/2



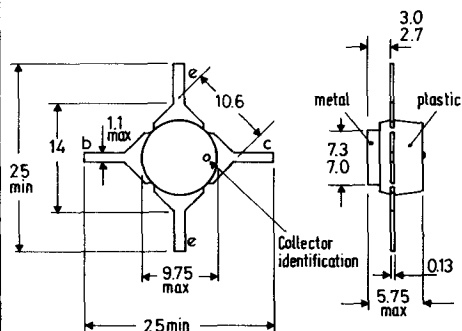
AD

SOT-48/3



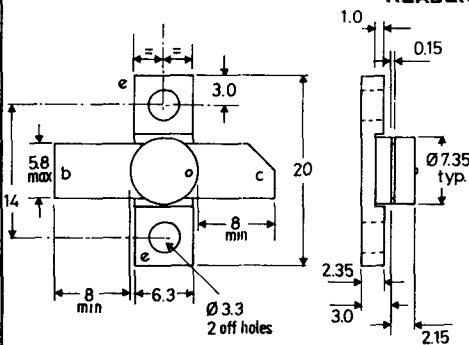
AE

SOT-48/4



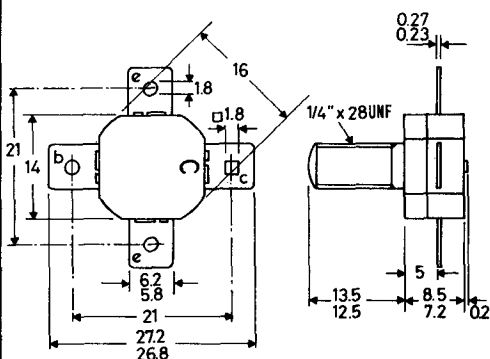
AF

**SOT-48
HEADER**

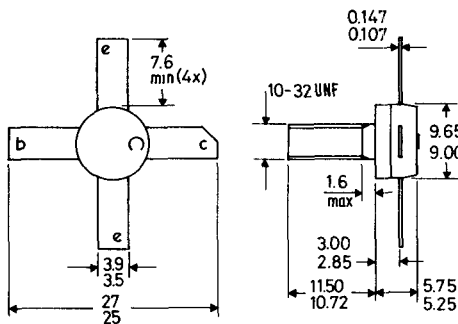
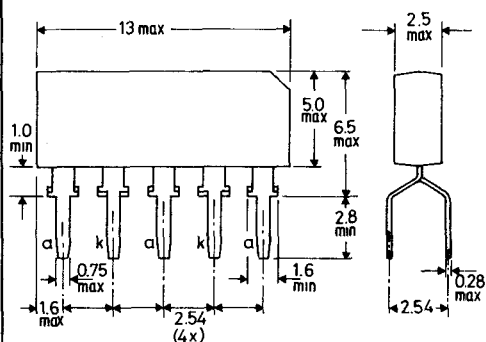
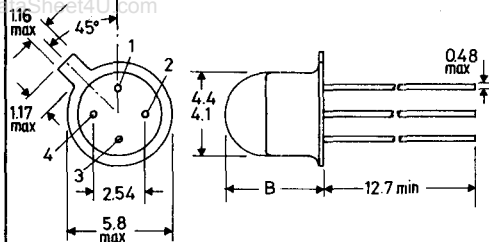


AG

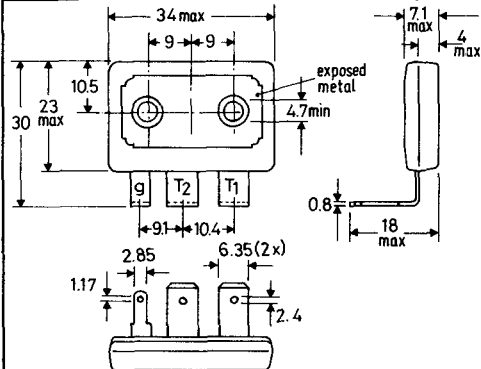
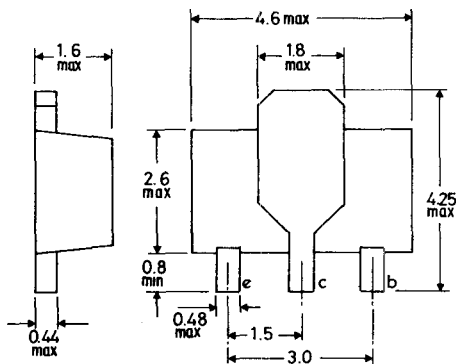
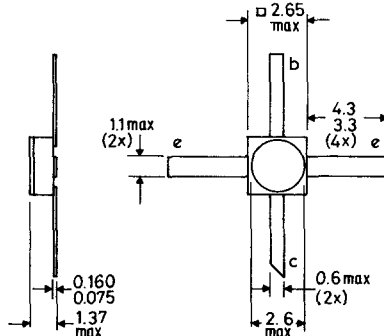
SOT-55

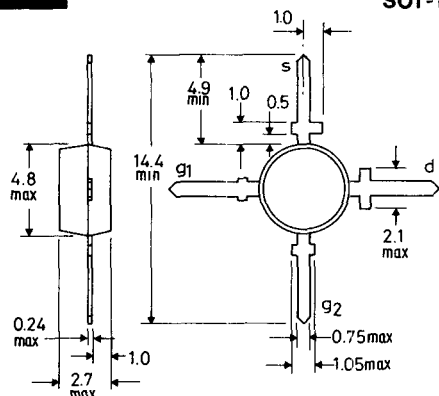
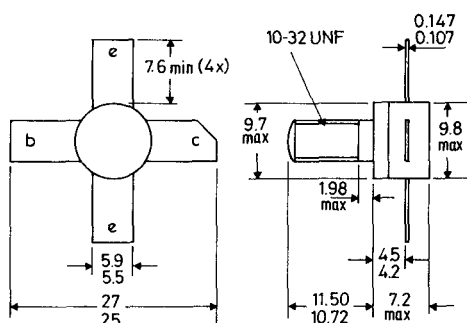
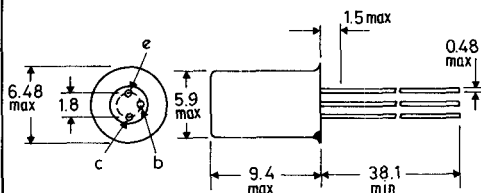
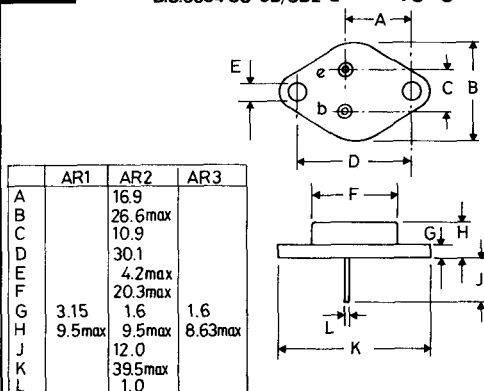
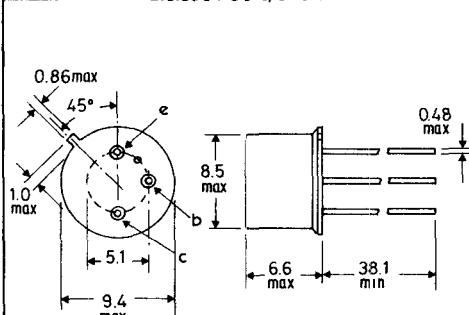


These drawings give limited information for quick reference purposes. For equipment design more complete information should be obtained from individual data sheets in the Technical Handbook or from standard B.S. or JEDEC outline drawings.

AH**SOT-56****AJ****SOT-60****AK****SOT-70**

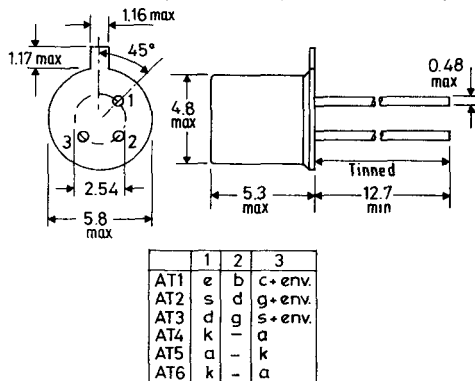
	1	2	3	4	B max
AK1	a	—	k	—	5.08
AK2	e	b	c	—	4.5
AK3	Vp	IP	GND	OP	5.08

AL**SOT-80****AM****SOT-89****AN****SOT-100**

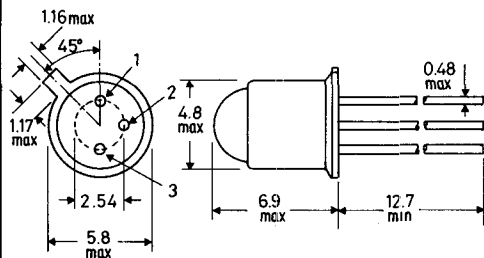
AO**SOT-103****AP****SOT-105****AQ****B.S.3934 SO-21/SB3-10 TO-1****AR****B.S.3934 SO-5B/SB2-2 TO-3****AS****B.S.3934 SO-3/SB3-3B TO-5**

AS1: collector connected to case

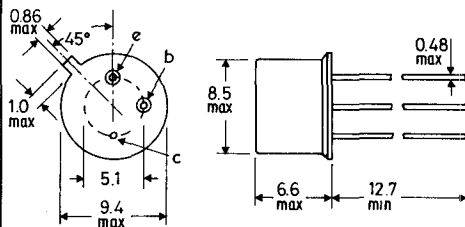
AS2: base connected to case

AT**B.S.3934 SO-12A/SB3-6A TO-18**

These drawings give limited information for quick reference purposes. For equipment design more complete information should be obtained from individual data sheets in the Technical Handbook or from standard B.S. or JEDEC outline drawings.

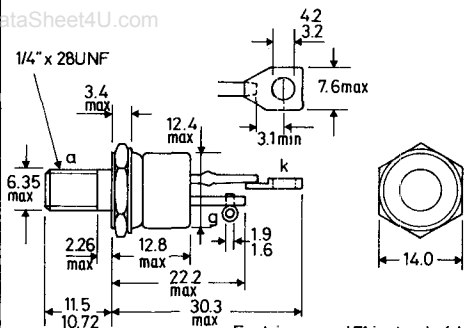
AU**TO-18**
(with lens)

	1	2	3
AU1	a	a	k
AU2	e	b	c+case
AU3	k	-	a

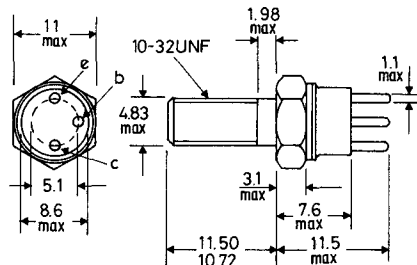
AV**B.S.3934 SO-3/SB3-3A****TO-39**

AV1: b+case
 AV2: case isolated
 AV3: c+case
 AV4: e.cathode
 b.gate
 c.anode+case

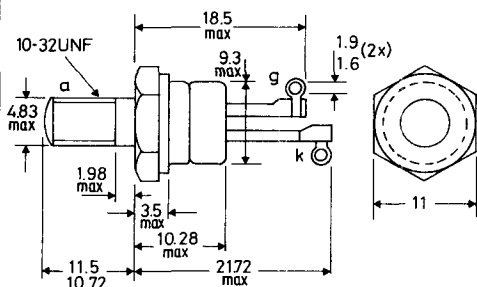
AV5: e.b. cell connections
 c. metal case
 AV6: red spot indicates
 +ve connection

AW**B.S.3932 SO-36****TO-48**

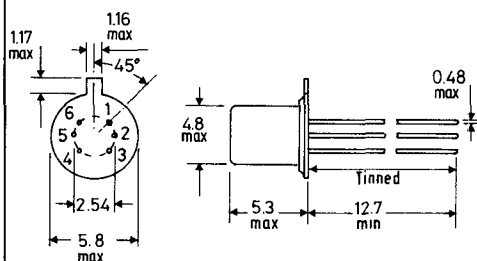
For triacs read T1 instead of k
 T2 instead of a

AX**TO-60**

Emitter connected to envelope

AY**B.S.3934 SO-35A****TO-64**

For triacs read T1 instead of k
 T2 instead of a

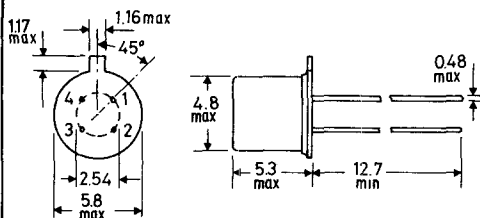
AZ**TO-71**

Pin	1	2	3	4	5	6
AZ1	e1	e2	c2	b2	b1	c1
AZ2	s1	d1	g1	s2	d2	g2

BA

B.S.3934 SO-12A/SB4-3

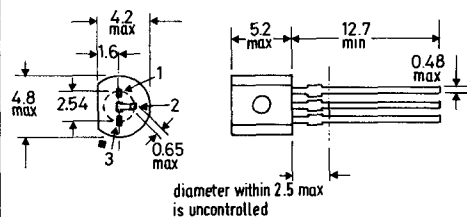
TO-72



	1	2	3	4
BA1	b	e	c	s+envelope
BA2	e	b	c	s+envelope
BA3	s	d	g	screen+envelope
BA4	d	g	1	s+b+envelope
BA5	d	s	g	b+envelope
BA6	k	gk	ga	a

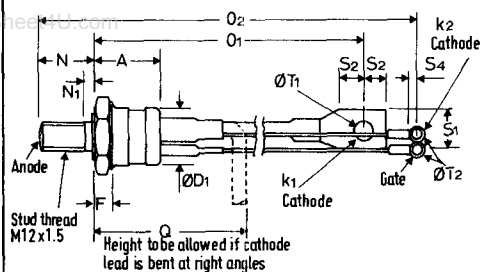
BBTO-92
variant

Pin	1	2	3
BB1	e	b	c
BB2	b	e	c
BB3	d	s	g
BB4	g	a	k
BB5	b	c	e

**BC**

B.S.3934 SO-30C

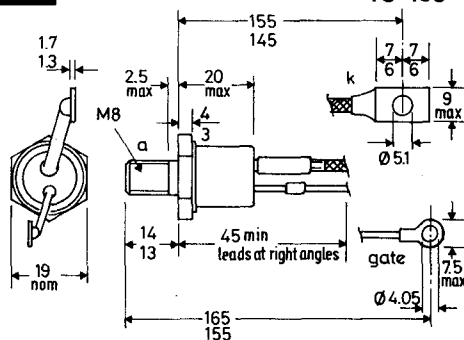
TO-94



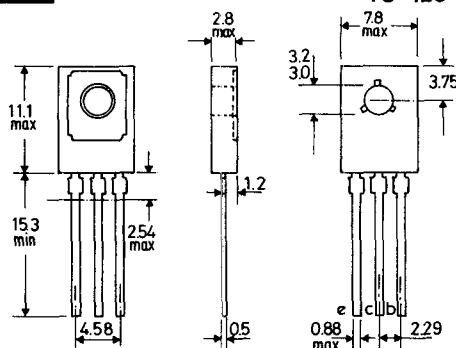
A	28.5 max	0 ₁	158 max	S ₄	3.8 min
ØD ₁	24.1 max	0 ₂	190 max	ØT ₁	8.3 max
F	8.9 max	Q	63.5 max	ØT ₂	4.2 max
N	21.0 max	S ₁	16.5 max		
N ₁	3.0 max	S ₂	9.6 min		

BD

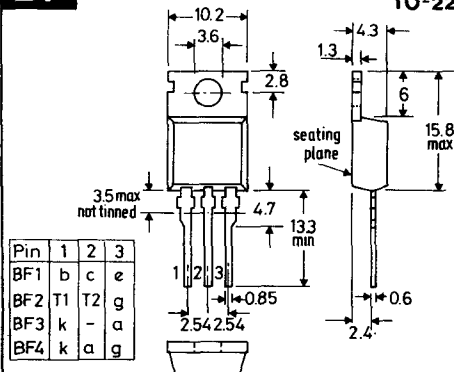
TO-103

For triacs read T1 instead of k
T2 instead of a**BE**

TO-126

**BF**

TO-220



Pin	1	2	3
BF1	b	c	e
BF2	T1	T2	g
BF3	k	-	a
BF4	k	a	g

These drawings give limited information for quick reference purposes. For equipment design more complete information should be obtained from individual data sheets in the Technical Handbook or from standard B.S. or JEDEC outline drawings.

[illegible]

Technical drawing of a mechanical part showing a cross-section and a side view. The cross-section at the top shows a rectangular profile with a total width of 1.98 and a height of 0.35. The side view below shows a stepped profile with a total length of 1.83 and a maximum height of 0.89. Dimensions include 0.31 min for the first step, 0.23 min for the last step, and 0.74 for the base height. A centerline symbol is at the bottom.

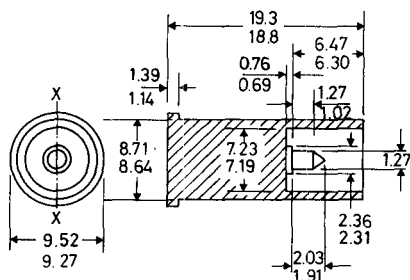
Technical drawing of a heat sink assembly. The drawing shows a cross-section of the assembly with dimensions in inches (top) and millimeters (bottom). The dimensions are as follows:

- Top flange diameter: $\varnothing 3.12$ inches, 2.98 mm
- Top flange thickness: 0.63 inches, 0.39 mm
- Mounting hole diameter: 0.3 inches, 0.2 mm
- Heat sink body diameter: 2.59 inches, 2.49 mm
- Heat sink body height: 3.43 inches, 3.33 mm
- Heat sink body width: 3.48 inches, 2.98 mm
- Heat sink body thickness: 0.81 inches, 0.71 mm
- Heat sink body material: Heatsink negative
- Heat sink body thread: 3.48 UNC 2A

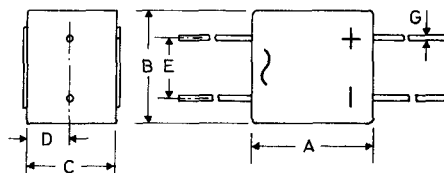
BN

B.S.3934

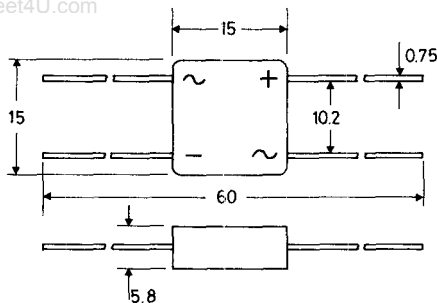
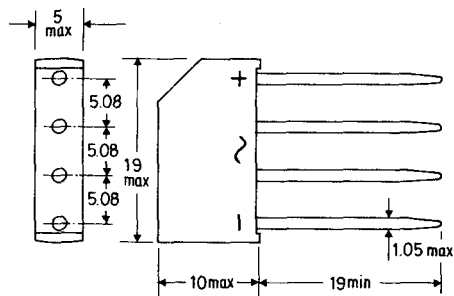
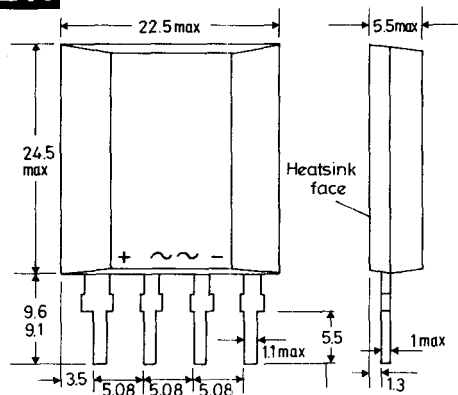
SO-26



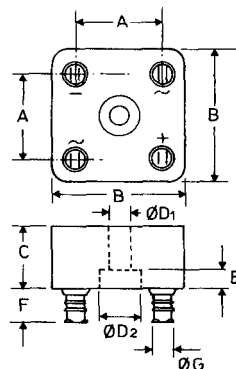
(All dimensions max.)

BO

	BO1	BO2	BO3
A	12	20	12
B	10	19	10
C	8	15	8
D	4	75	4
E	5	10	5
F	58	60	48
G	0.75	1.0	1.1

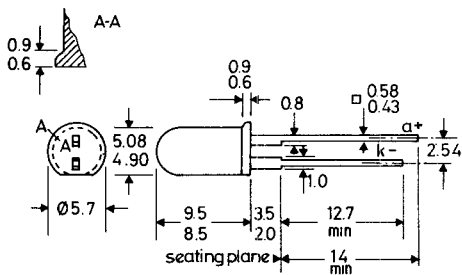
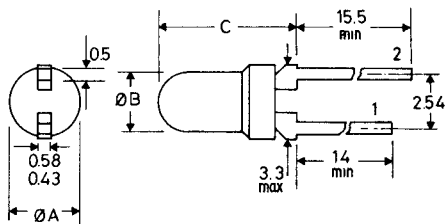
BP**BQ****BR****BS**

B.S.3934 SO-67

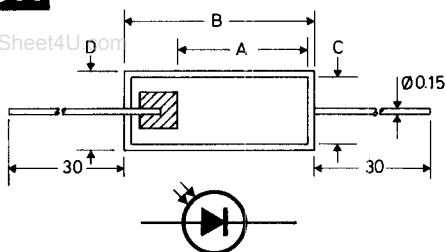


	BS1	BS2
	typ.	max
A	23	21
B	35	34.6
C	17	15.2
ØD1	5	5.05
ØD2	11	11
E	5	3.7
F	9	9
ØG	4.8	4.8

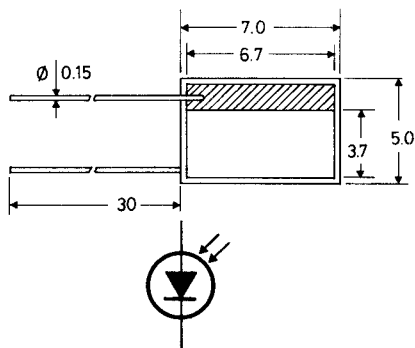
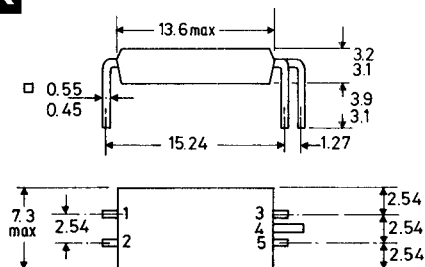
These drawings give limited information for quick reference purposes. For equipment design more complete information should be obtained from individual data sheets in the Technical Handbook or from standard B.S. or JEDEC outline drawings.

CF

CG


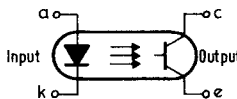
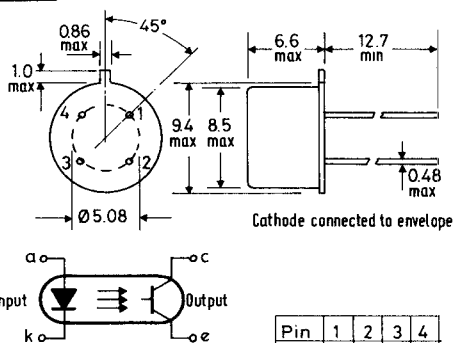
	1	2	ØA	ØB	C
CG1	k(-)	a(+)	3.0-3.17	2.4-2.6	5.8-6.3
CG2	a(+)	k(-)	3.0-3.17	2.4-2.6	5.8-6.3
CG3	k(-)	a(+)	3.3 max	2.65-3.17	4.8-6.3

CH


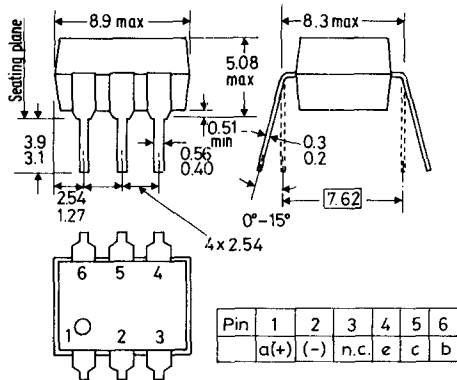
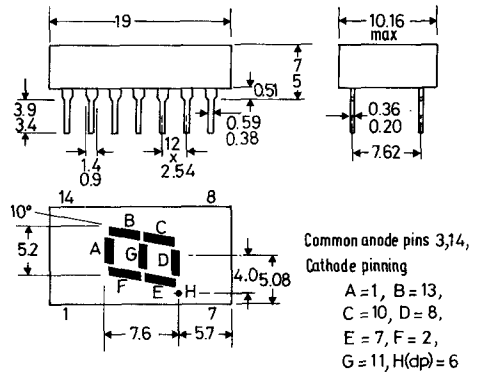
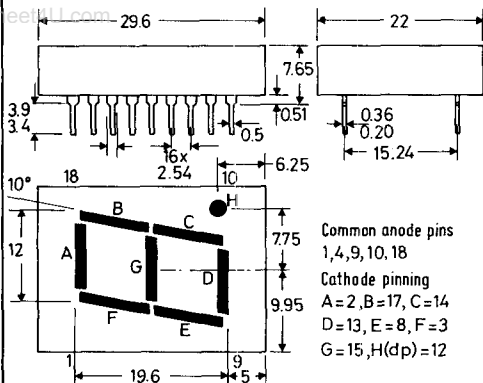
	CH1	CH2
A	2.2	3.5
B	3.35	4.55
C	0.95	1.85
D	1.25	2.15

CJ

CK


Pin	1	2	3	4	5
CK1	a	k	b	c	e
CK2	k	a	e	omitted	c

CL


Pin	1	2	3	4
CL1	a	k	e	c
CL2	e	c	a	k

CM**CN****CO**

These drawings give limited information for quick reference purposes. For equipment design more complete information should be obtained from individual data sheets in the Technical Handbook or from standard B.S. or JEDEC outline drawings.